

Listing of Claims

Please cancel claims 12, 15-17, 19, 21, 23, 27, 30-32, 34, 36-38, 40, 42, 44 and 54-69 without prejudice, and add new claims 70 - 103. This listing of claims will replace all prior versions and listings of claims in the application.

1. – 69. (Cancelled)

70. (New) A recombinant fusion polypeptide, comprising a multivalent immunogenic portion fused to an immunogenic polypeptide carboxy-terminal to the multivalent immunogenic portion, which protects the immunogenicity of the multivalent immunogenic portion, wherein the multivalent immunogenic portion comprises at least two immunogenic amino-terminal polypeptides of Group A streptococcal M protein from at least two different streptococcal serotypes, wherein each of the immunogenic amino-terminal polypeptides is at least 10 amino acids in length, and wherein the immunogenic polypeptide carboxy-terminal to the multivalent immunogenic portion is a reiteration of the immunogenic amino-terminal polypeptide from the amino terminus of the multivalent immunogenic portion.

71. (New) The fusion polypeptide according to claim 70 wherein at least one of the immunogenic amino-terminal polypeptides is from a Group A streptococcal serotype selected from the group consisting of 1, 2, 3, 4, 5, 6, 11, 12, 13, 14, 18, 19, 22, 24, 28, 30, 48, 49, 52, and 56.

72. (New) The fusion polypeptide according to claim 70 wherein the multivalent immunogenic portion consists of six immunogenic amino-terminal polypeptides of Group A streptococcal M protein from six different streptococcal serotypes.

73. (New) The fusion polypeptide according to claim 72 wherein the six different Group A streptococcal serotypes are 1, 3, 5, 6, 19, and 24.

74. (New) The fusion polypeptide according to claim 70 wherein the multivalent immunogenic portion consists of ten immunogenic amino-terminal polypeptides of Group A streptococcal M protein from ten different streptococcal serotypes.

75. (New) fusion polypeptide according to claim 74 wherein the ten different Group A streptococcal serotypes are 1, 3, 5, 6, 18, 19, 22, 24, 28, and 30.

76. (New) The fusion polypeptide according to any one of claims 70-72 wherein at least one of the immunogenic amino-terminal polypeptides is from a Group A streptococcal serotype 11.

77. (New) The fusion polypeptide according to any one of claims 70-72 wherein at least one of the immunogenic amino-terminal polypeptides is from a Group A streptococcal serotype 13.

78. (New) The fusion polypeptide according to any one of claims 70-72 wherein at least one of the immunogenic amino-terminal polypeptides is from a Group A streptococcal serotype 22.

79. (New) The fusion polypeptide according to any one of claims 70-72 wherein at least one of the immunogenic amino-terminal polypeptides is from a Group A streptococcal serotype 28.

80. (New) The fusion polypeptide according to any one of claims 70-72 wherein the fusion polypeptide is capable of eliciting an immune response against Group A streptococci comprising opsonic antibodies that do not cross-react with human tissue.

81. (New) The fusion polypeptide according to claim 70 wherein the recombinant fusion polypeptide further comprises a marker.

82. (New) The fusion polypeptide according to claim 81 wherein the marker is a 6xHis-tag.

83. (New) The fusion polypeptide according to claim 81 wherein the marker is capable of binding a nickel resin.

84. (New) The fusion polypeptide according to any one of claims 70-72 wherein the immunogenic polypeptides of the fusion polypeptide are joined by amino acids specified by a restriction enzyme site.

85. (New) A composition for promoting an immune response against Group A streptococci, comprising a recombinant fusion polypeptide of claim 70 and a pharmaceutically acceptable excipient or diluent.

86. (New) The composition according to claim 85, further comprising an adjuvant.

87. (New) The composition according to claim 86 wherein the adjuvant is alum or Freund's adjuvant.

88. (New) The composition according to any one of claims 85-87, further comprising an immunomodulatory cofactor.

89. (New) The composition according to claim 88 wherein the immunomodulatory cofactor is selected from the group consisting of IL-4, IL-10, γ -IFN, IL-2, IL-12, and IL-15.

90. (New) The composition according to any one of claims 85-87 wherein at least one of the immunogenic polypeptides is from a Group A streptococcal serotype selected

from the group consisting of 1, 2, 3, 4, 5, 6, 11, 12, 13, 14, 18, 19, 22, 24, 28, 30, 48, 49, 52, and 56.

91. (New) The composition according to any one of claims 85-87 wherein the immunogenic portion consists of six immunogenic amino-terminal polypeptides of Group A streptococcal M protein from six different streptococcal serotypes.

92. (New) The composition according to claim 91 wherein the six different Group A streptococcal serotypes are 1, 3, 5, 6, 19, and 24.

93. (New) The composition according to any one of claims 85-87 wherein the multivalent immunogenic portion consists of ten immunogenic amino-terminal polypeptides of Group A streptococcal M protein from ten different streptococcal serotypes.

94. (New) The composition according to claim 93 wherein the ten different Group A streptococcal serotypes are 1, 3, 5, 6, 18, 19, 22, 24, 28, and 30.

95. (New) The composition according to any one of claims 85-87 wherein at least one of the immunogenic polypeptides is from a Group A streptococcal serotype 11.

96. (New) The composition according to any one of claims 85-87 wherein at least one of the immunogenic polypeptides is from a Group A streptococcal serotype 13.

97. (New) The composition according to any one of claims 85-87 wherein at least one of the immunogenic polypeptides is from a Group A streptococcal serotype 22.

98. (New) The composition according to any one of claims 85-87 wherein at least one of the immunogenic polypeptides is from a Group A streptococcal serotype 28.

99. (New) The composition according to any one of claims 85-87 wherein the fusion polypeptide is capable of eliciting an immune response against Group A streptococci comprising opsonic antibodies that do not cross-react with human tissue.

100. (New) The composition according to claim 85 wherein the recombinant fusion polypeptide further comprises a marker.

101. (New) The composition according to claim 100 wherein the marker is a 6xHis-tag.

102. (New) The composition according to claim 100 wherein the marker is capable of binding a nickel resin.

103. (New) The composition according to claim 85 wherein the immunogenic polypeptides are joined by amino acids encoded by a restriction enzyme site.